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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

FASTOVSKY, LEONID M

ART UNIT PAPER NUMBER

3742

DATE MAILED: 02/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/789,765

Applicant(s)

HADZIZUKIC ET AL.

Examiner

Leonid M Fastovsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noda et al (4,631,976) in view of Steuart et al (1,581,884) and further in view of Rico (4,981,737).

Noda teaches a steering wheel 3, comprising a core 4, an outer covering 21, a heater 7 disposed between the core and the outer covering, plurality of protrusions corresponding to spokes 2, cushion 5 made out of a polyurethane, a separator 12 made out of a polyester, and a conductor 13 between the cushion and the separator. However, he does not disclose the cushion's range of elongation and the conductor having a zig-zag configuration. Steuart discloses a steering wheel heater having a heating element 6 being of zig-zag configuration, and Rico discloses a tool wrap having a cushion-polyurethane layer 12 that can elongate up to 500%. It would have been obvious to one having ordinary skill in the art to modify Noda's invention to include a heating element as taught by Steuart and a cushion as taught by Rico in order to permit elongation of the cushion and the separator at least 50%, wherein the heater can also elongate

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about 15% of its own length since the heater of Noda in view of Steuart utilizes the same zig-zag configuration and the cushion utilizes a polyurethane, as in the applicant's invention.

2. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noda in view of Steuart, Rico and further in view of Kurata et al (4,547,655).

Noda in view of Steuart and Rico discloses substantially the claimed invention, but does not disclose distinct zones. Kurata shows two distinct zones (Col. 5, lines 25-30). It would have been obvious to one having ordinary skill in the art to modify the invention of Noda in view of Steuart and Rico to use three distinct zones based on teaching of Kurata for safety.

3. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noda et al in view of Steuart and Rico, and further in view Bonn et al (6,441,344) and Okabe (JP2001020044).

Noda in view of Steuart and Rico discloses substantially the claimed features but does not disclose strands, and a metal alloy with copper and nickel. Kurata shows two distinct zones (Col. 5, lines 25-30), Bon shows plurality of strands (Col.3, lines 35-40), and Okabe shows a heating wire comprises about .5% of copper and nickel each. It would have been obvious to one having ordinary skill in the art to use in the invention of Noda, Steuart and Rico strands as taught by Bonn for safety, and percentage of copper and nickel as taught by Okabe as a matter of design choice since it has been held that discovering an optimum value or workable ranges involves only routine skill in the art. *In re Adler*, 105 USPQ 233.

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4. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noda in view of Steuart, Rico, Bonn and Okabe and further in view of Sugiyama et al (6,414,270).

Noda in view of Steuart, Rico, Bonn and Okabe discloses substantially the claimed invention, but does not disclose a diameter of the wire strands.

Sugiyama discloses a diameter of a wire between 0.05 and 0.1 mm. It would have been obvious to one having ordinary skill in the art to modify the invention of Nada in view of Steuart, Rico, Bonn and Okada to include a diameter of a wire as taught by Sugiyama as a matter of design choice, since it has been held that discovering an optimum value or workable ranges involves only routine skill in the art. *In re Adler*, 105 USPQ 233.

5. Claims 27 –28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noda in view of Steuart and Rico and further in view of Hauschultz et al (5,714,738).

Noda in view of Steuart and Rico discloses substantially the claimed invention, but does not disclose a heat transfer coefficient. Hauschultz discloses a coefficient of conductivity about 0.28 to 0.3 Watts per meter-K. It would have been obvious to one having ordinary skill in the art to modify the invention of Nada in view of Steuart and Rico to include a heater transfer coefficient as taught by Hauschulz as a matter of design choice, since it has been held that discovering an optimum value or workable ranges involves only routine skill in the art. *In re Adler*, 105 USPQ 233.

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6. Claims 29-30 rejected under 35 U.S.C. 103(a) as being unpatentable over Noda in view of Steuart and Rico and further in view of Haag (6,093,908).

Noda in view of Steuart and Rico discloses substantially the claimed invention, but does not disclose that the cushion is laminated to the separator with an adhesive. Haag teaches a heated steering wheel with a heating element 28, wherein the cushion 24 is laminated to the separator 30 with an adhesive (col. 4, lines 40-50). It would have been obvious to one having ordinary skill in the art to modify the invention of Noda, Steuart and Rico to include an adhesive as taught by Haag in order to better secure the structure of the heated wheel.

7. Claims 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noda in view of Steuart and Rico and further in view of Kurata.

Noda in view of Steuart and Rico discloses substantially the claimed invention, but does not disclose distinct zones. Kurata shows two distinct zones (Col. 5, lines 25-30). It would have been obvious to one having ordinary skill in the art to modify the invention of Noda in view of Steuart and Rico to use three distinct zones based on teaching of Kurata for safety.

8. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noda in view of Steuart, Rico and Kurata and further in view of Bon, Okabe and Sugiyama.

Noda in view of Steuart, Rico and Kurata discloses substantially the claimed features but does not disclose wire strands and their diameter, and a metal alloy with copper and nickel. Bon shows plurality of strands (Col.3, lines 35-40), Okabe shows a heating wire comprises about .5% of copper and nickel each, and

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Sugiyama discloses a diameter of a wire between 0.05 and 0.1 mm. It would have been obvious to one having ordinary skill in the art to use in the invention of Noda, Steuart, Rico and Kurata strands as taught by Bonn for safety with a diameter as taught by Sugiyama, and percentage of copper and nickel as taught by Okabe as a matter of design choice since it has been held that discovering an optimum value or workable ranges involves only routine skill in the art. *In re Adler*, 105 USPQ 233.

9. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noda in view of Steuart, Rico and Kurata and further in view of Hauschultz. Noda in view of Steuart, Rico and Kurata discloses substantially the claimed invention, but does not disclose a heat transfer coefficient. Hauschultz discloses a coefficient of conductivity about 0.28 to 0.3 Watts per meter-K. It would have been obvious to one having ordinary skill in the art to modify the invention of Noda in view of Steuart, Rico and Kurata to include a heater transfer coefficient as taught by Hauschultz as a matter of design choice, since it has been held that discovering an optimum value or workable ranges involves only routine skill in the art. *In re Adler*, 105 USPQ 233.

10. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noda in view of Steuart, Rico and Kurata and further in view of Haag. Noda in view of Steuart, Rico and Kurata discloses substantially the claimed invention, but does not disclose that the cushion is laminated to the separator with an adhesive. Haag teaches a heated steering wheel with a heating element 28, wherein the cushion 24 is laminated to the separator 30 with an adhesive

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(col. 4, lines 40-50). It would have been obvious to one having ordinary skill in the art to modify the invention of Noda, Steuart, Rico and Kurata to include an adhesive as taught by Haag in order to better secure the structure of the heated wheel

11. Claims 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noda in view of Steuart, Rico, Kurata and further in view of Hauschultz and Sugiyama.

Noda in view of Steuart, Rico and Kurata discloses substantially the claimed invention including a cushion being closer to the core than the separator and an outer covering 21 being formed of leather, but does not disclose a heat transfer coefficient and a diameter of wire strands. Hauschulz shows a coefficient of conductivity about 0.28 to 0.3 Watts per meter-K, and Sugiyama shows a diameter of a wire between 0.05 and 0.1 mm. It would have been obvious to one having ordinary skill in the art to modify the invention of Nada in view of Steuart, Rico and Kurata to include a heater transfer coefficient as taught by Hauschulz and a diameter of a wire as taught by Sugiyama as a matter of design choice, since it has been held that discovering an optimum value or workable ranges involves only routine skill in the art. *In re Adler*, 105 USPQ 233.

12. Claims 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noda in view of Steuart, Rico, Kurata, Hauschultz and Sugiyama and further in view of Haag.

Noda in view of Steuart, Rico, Kurata, Hauschultz and Sugiyama discloses substantially the claimed invention, but does not disclose that the cushion is

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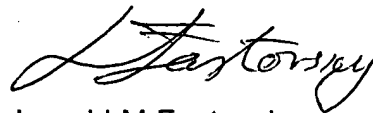
laminated to the separator with an adhesive and two tape. Haag teaches a heated steering wheel with a heating element 28, wherein the cushion 24 is laminated to the separator 30 with an adhesive (col. 4, lines 40-50). It would have been obvious to one having ordinary skill in the art to modify the invention of Noda, Steuart, Rico, Kurata, Hauschultz and Sugiyama to include an adhesive as taught by Haag in order to better secure the structure of the heated wheel, and also a two way tape as a matter of design choice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid M Fastovsky whose telephone number is 571-272-4778. The examiner can normally be reached on M-Th. 8.00 am -6.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Leonid M Fastovsky
Examiner
Art Unit 3742

Imf



ROBIN O. EVANS
PRIMARY EXAMINER

